

Although the field work was done almost two decades ago, Oliver casts much of his material against a theoretical field of much more recent vintage. His terminology conforms to that of Homans, Kluckhohn, and Hoebel, among others. Unfortunately, Oliver does not seem to be aware of such work as that of Karl Polanyi, for the Polanyi approach to such concepts as money and value might have added greater clarity to the book. Similarly, the employment of the concept of "redistribution" with its implications and ramifications might have made Siuai economy seem more rational (although not in terms of classical economics!) and less atomistic.

As a final word I would like to say that this is, above all, an exceedingly fine ethnography and one that is certain to be widely used in testing current theories about the emergence of ranking and stratification and the development of political power. Although it does not give great detail on the precise field methods used, it is an excellent job of analytic reporting and well worth recommending to those scientists who, not anthropologists themselves, would like to see a competent ethnographer at work.

MORTON H. FRIED

*Department of Anthropology,
Columbia University*

Information Theory in Psychology.

Problems and methods. Henry Quastler, Ed. Free Press, Glencoe, 1955. 436 pp. \$6.

Information theory has stimulated at least its share of large-scale conferences and symposia. The papers presented at five of these conferences have been collected into book or booklike form, and now we have a sixth.

The conference from which this volume was derived was held under the auspices of the Control Systems Laboratory at the University of Illinois in the summer of 1954. It had a somewhat more restricted scope than, for instance, the biannual London conferences on communication theory, in that it was exclusively concerned with the application of information measures and theory to behavioral studies. However, of the 53 conferees and/or contributors to this volume, 21 are not professional psychologists, or in any event are not listed in the latest directory of the American Psychological Association. Quastler, who organized the meeting and edited this volume of the proceedings, is a radiobiologist.

Partly as a result of the interdisciplinary structure of the meeting, non-psychologists will find things of interest here. In particular, those who are con-

cerned with the application of information theory to finite samples and situations that do not fit the conventional communication system model will find some of their problems discussed. The admonitions of Cronbach, "On the non-rational application of information measures in psychology," are a particularly good antidote to the overenthusiastic acceptance of the verbalisms of information theory. It probably should be pointed out that the too ready use of information measures is by no means confined to psychologists; other conferences on information theory could well have started out with this same skeptical note.

Also in this volume will be found the first readily accessible publication of Miller's work on the bias of information estimates. In fact, this is the first collection of papers on information theory in which there appears a recurring awareness of the *statistical* problems involved in the application of information measures.

Unfortunately, such genuine contributions to the field are interleaved with a number of other papers that either duplicate material which the same author has presented more completely elsewhere or that read like informal progress reports to a small group of coworkers. Perhaps the best part of the book is the editorial comment by Quastler, who introduces and then comments on each paper. These comments are uniformly wise and thoughtful, and in many instances they contain substantial amounts of additional data. By this device, Quastler gives a coherence to this collection of papers that is more apparent than real. The reader who would like to get a picture of the successes and failures of information theory in psychology would do well to read Quastler's comments first and then make a judicious selection of the papers that constitute the bulk of the volume.

FREDERICK C. FRICK

*Lincoln Laboratory,
Massachusetts Institute of Technology*

Handbook of Vital Statistics Methods.

Series F, No. 7. *Studies in Methods*. Statistical Office of the United Nations, New York, 1955. 258 pp. \$2.50.

The purpose of this handbook is to "explore current practices, to make conveniently available recommended statistical standards, and to present uniform concepts, definitions and procedures upon which development of national vital statistics and the improvement of their international comparability may be based."

Following a historical summary, the whole scope of vital statistics operations

is described, including their uses; legal and administrative provisions for their recording; definitions of the events covered (births, deaths, stillbirths, marriages, and divorces); duties and qualifications of registrars and informants; types of registration; details of the reporting process and of report forms; uses, definitions, and classification of statistical items as well as problems relating thereto; compilation and tabulation of data from the reports; computation of rates and indexes; and evaluation of the entire system.

The presentation of the basic principles involved by citation of actual practices in 65 different countries avoids the impression of dogmatic pronouncements and hence makes the recommendations especially acceptable. Moreover, the equitable discussions of the advantages and disadvantages of various methods—for example, "civil" versus "health" administration—serve to suggest adoption of specific arrangements that will avoid or circumvent the deficiencies inherent in a particular system. Similarly, the exposition of the problems created by variations in definitions or in application of definitions—for example, "live birth" versus "stillbirth"—emphasizes the care required in analysis. Authoritative suggestions regarding such basic factors as size, shape, and layout of report forms, color of forms and inks, and wording of instructions bring the report to practical elementals.

Detailed and summary tables have been profitably used to identify general patterns of vital statistics practices. Such factors as the limitations of specific collection methods—for example, aggregation of data from summary reports versus compilation from individual reports—have been readily illustrated by this means. Specific vital statistics data from selected areas also serve effectively to demonstrate the points at issue.

Coding, classification, and tabulating problems are explained in detail, and the need for error control is emphasized. Tabulating methods are briefly but adequately mentioned, while such factors as coverage (partial versus complete), time reference (year of registration versus year of event), and geographic reference (occurrence versus residence) are thoroughly explored. Specific "minimum" tabulations are outlined; in addition, "optional" ones are presented for jurisdictions that can undertake them. Statements of the uses or purposes of each tabulation fully justify the recommendations.

The description of rates, ratios, and other vital indexes is sufficient for a general understanding of the problem of computing them and of the limitations inherent in them.

Evaluation methods include sugges-